

CLAIMS

1. A composition comprising as a first component an enzyme having galactose oxidase activity and as a second component an oxidizable substrate for the enzyme having galactose oxidase activity and/or an enzyme which is capable of converting a compound into a substrate for the enzyme having galactose oxidase activity.
2. A composition according to claim 1 wherein the second component oxidizable substrate is at least dimeric with respect to galactose.
3. A composition according to claim 1 or 2 wherein the enzyme having galactose activity is derived from an organism which is selected from the group consisting of a plant species, a fungal species and a bacterial species.
4. A composition according to claim 1 wherein the enzyme having galactose activity is galactose oxidase.
5. A composition according to claim 1 wherein the compound which can be converted into a substrate for the enzyme having galactose oxidase activity is a galactose containing compound.
6. A composition according to claim 1 wherein the compound which can be converted into a substrate for the enzyme having galactose oxidase activity is a compound naturally present in cereal flour or a component hereof.
7. A composition according to claim 6 wherein the compound naturally present in cereal flour is a pentosan or a xylan.
8. A composition according to claim 1 which comprises a compound which is an oxidizable substrate for the enzyme having galactose oxidase activity.

redundant
of clm. 1

* Galactose
Oxidase
- Galactose
lactose

0462211-031100

5
sub
B3

sub B4
9. A composition according to claim 8 wherein said oxidizable substrate compound is a component of a compound naturally present in cereal flour.

10. A composition according to claim 9 wherein the oxidizable substrate compound is selected from the group consisting of a galactan, a galactose oligomer or dimer, or galactose.

11. A composition according to claim 10 wherein the oxidizable substrate compound is lactose.

10 12. A composition according to claim 1 wherein the second component is an enzyme selected from the group consisting of a hemicellulase, a pentosanase, a xylanase, an-arabinofuranosidase, a mannanase, a galactanase and a β -galactosidase.

*
Second enzyme in comp.*

Sub a1
15 13. A composition according to claim 1 which comprises a further enzyme component selected from the group consisting of a cellulase, a starch degrading enzyme, a lipase and a protease.

same as claim 13
14. A composition according to any of claims 1-13 further comprising a non-enzymic dough additive compound.

Sub a2
20 15. A composition according to claim 1 wherein the amount of enzyme having galactose oxidase activity is in the range of 1 to 10,000 units per g.

*
same as claim 15
25 16. A method of preparing a flour dough comprising adding to the dough an amount of the composition of any of claims 1-15 which is sufficient to obtain an amount of an enzyme having galactose oxidase activity in the dough which is in the range of 1 to 10,000 units per kg of flour.

sub B5
17. A method according to claim 16 wherein the enzyme having galactose oxidase activity is galactose oxidase.

18. A method according to claim 16 or 17 wherein the flour dough is a noodle dough.
19. A method according to claim 16 or 17 wherein the dough is an alimentary paste dough.
- * 5 20. A method of preparing a bakery product, comprising baking the flour dough obtained by the method of claim 16.
- * 21. Use of the composition of claim 1 as a dough and/or bread improving agent.
- 10 22. Use according to claim 21 wherein the composition ^{further} comprises a further enzyme component selected from the group consisting of a cellulase, a starch degrading enzyme, a lipase and a protease.
- sub 86 23. Use according to claim 21 or 22 wherein the composition ^{further} ~~is one further~~ ^{es} comprising a non-enzymic dough additive compound.
- 15 24. Use according to claim 21 or 22 wherein the enzyme having galactose oxidase activity ^{is added} is added to the dough ingredients, dough additives or the dough in the form of a preparation substantially not containing other enzyme activities.
- sub 87 20 25. Use according to claim 21 wherein the enzyme having galactose oxidase activity is provided in the form of a crude enzyme preparation.
- add 87

001100-11629460